

ZI-CHEM 11110

Oilfield Microbiological Control

HIGHLIGHTS

ZI-CHEM 11110 is a broad-spectrum micro-biocide containing concentrated glutaraldehyde for controlling microbial growth in oil field applications such as injection water systems, drilling muds, packer fluids, completion and workover fluids.

ZI-CHEM 11110 is especially effective in controlling sulfate-reducing bacteria (SRB) and acid producing bacteria (APB). The presence of SRB's and APB's presents a serious challenge for effective control of microbial contamination in a production system. does not react with, and is not deactivated by, H₂ S or other organic acids that are produced by these organisms.

ZI-CHEM 11110 has the capability to penetrate a biofilm and kill the microorganisms that are contained within it. This penetrating ability along with its long-term stability in oilfield waters, makes it an effective product to control established biofilms in pipelines and prevents the formation of new ones.

TYPICAL PROPERTIES

- Appearance: Clear Colorless to slight hazy Pale-Yellow Liquid
- Specific gravity: 1.0 – 1.2
- pH 3.0 – 5.0
- Freeze point: <-13°C

PRIMARY APPLICATIONS

The desired dose rate of ZI-CHEM 11110 will depend on the specific application and dosing methods. Actual dose will depend on the conditions and the results required. Specific recommendations will be provided by your ZI-TECHASIA technical representative.

Water Floods Injection Water

ZI-CHEM 11110 should be added to a water flood system at a point where uniform mixing will occur. slug dosed into the injection water on a daily or weekly basis at 100 to 5500 ppm as product for up to 4 hours, although the exact treatment regimen will depend on the condition of the system, the amount of water being treated, etc.

Drilling Muds, Packer Fluids, Completion and Workover Fluids

ZI-CHEM 11110 should be added to these fluids at a point where uniform mixing will occur. Add 50-1040 ppm to a freshly prepared fluid depending on severity of contamination.

Gas Storage Well and Systems

Individual injection wells should be treated with ZI-CHEM 11110 at the same application rates, and in the same manner as described under Water Floods. Injections should be repeated as needed to maintain control. Add 520 - 5200 ppm as product.

THE BENEFITS

- Avoid deterioration of crude oil and petroleum products
- Avoid disruption in oil extraction and processing technology
- Protect oil and gas pipeline from MIC
- Avoid unscheduled downtime
- Environmentally friendly

COMMON APPLICATIONS

- Injection water system
- Drilling muds
- Packer fluids
- Completion and workover fluids
- Gas Storage Well and Systems

PACKAGING

- 25kg pails
- 200kg drums
- 1,000kg IBC's or in bulk

HANDLING & SAFETY

ZI-TECHASIA maintains a database of safety data sheets (SDS) on all our products. These contain health & safety information to assist in the safe and appropriate chemical handling, ensuring the protection of personnel.



Hydrotesting

Slug dose 104 - 4150 ppm as product depending on water quality and length of time the equipment will remain idle.

Pipeline Pigging and Scraping Operation

Add to a slug of water immediately following the scraper at 1040 – 10400 ppm as product in the water at the discharge point or pig trap, depending on the length of the pipeline and the severity of the biofouling.